AMENDMENT

Please amend the claims as follows:

Please cancel claims 1-5, 10-13, and 19-20, all pending claims, and substitute the following:

--31. An expression vector for persistently maintaining expression of a tolerogenic epitope in an animal comprising

a nucleotide sequence encoding a fusion immunoglobulin heavy or light chain operably linked to control regions for expression of said nucleotide sequence functional in a haemopoietic or lymphoid cell,

wherein said fusion immunoglobulin comprises at least one epitope derived from an antigen to which tolerance is to be induced in the N-terminal variable region of the heavy or light chain of said immunoglobulin

wherein said expression vector provides for stable expression of said nucleotide sequence in the haemopoietic or lymphoid cell and

wherein said antigen is associated with autoimmune disease or allergic reactions of said animal.

32. The expression vector of claim 31 wherein said fusion immunoglobulin has said at least one tolerogenic epitope inserted adjacent to the first framework region of the N-terminus variable region of the heavy chain.

33. The vector of claim 31 which is a retroviral vector.

34. The vector of claim 31 wherein said antigen is associated with an allergic reaction and is an antigen of pollen, ragweed, or dust mite.

35. The expression vector of claim 31 wherein said antigen is an autoantigen and is selected from clotting factor VIII, acetylcholine receptors, collagen, myelin basic protein, thyroglobulin, and histocompatibility antigen.

36. The expression vector of claim 31 which contains more than one copy of the nucleotide sequence encoding said epitope.

37. The expression vector of claim 31 wherein the fusion immunoglobulin is an IgG.

38. The expression vector of claim 31 which has the characteristics of ATCC No. 69555.

39. A transformed haemopoietic or lymphoid cell comprising the expression vector of claim 31.

40. The cell of claim 39 which is a bone marrow cell.

41. An expression vector for persistently maintaining expression of a tolerogenic epitope in an animal comprising

a nucleotide sequence encoding a fusion immunoglobulin heavy or light chain operably linked to control regions for expression of said nucleotide sequence functional in a haemopoietic or lymphoid cell,

wherein said fusion immunoglobulin comprises at least one epitope derived from an antigen to which tolerance is to be induced in the N-terminal variable region of the heavy or light chain of said immunoglobulin

wherein said expression vector provides for stable expression of said nucleotide sequence in the haemopoietic or lymphoid cell and

wherein said vector is a retroviral vector.

42. The expression vector of claim 41 wherein said antigen is associated with autoimmune disease or allergic reactions of said animal.

43. The vector of claim 42 wherein said antigen is associated with an allergic reaction and is an antigen of pollen, ragweed, or dust mite.

44. The expression vector of claim 42 wherein said antigen is an autoantigen and is selected from clotting factor VIII, acetylcholine receptors, collagen, myelin basic protein, thyroglobulin, and histocompatibility antigen.

45. The expression vector of claim 41 which contains more than one copy of the nucleotide sequence encoding said epitope.

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46. A transformed haemopoietic or lymphoid cell comprising the expression vector of claim 41.

47. An expression vector for persistently maintaining expression of a tolerogenic epitope in an animal comprising

a nucleotide sequence encoding a fusion immunoglobulin heavy or light chain operably linked to control regions for expression of said nucleotide sequence functional in a haemopoietic or lymphoid cell,

wherein said fusion immunoglobulin comprises at least one epitope derived from an antigen to which tolerance is to be induced in the N-terminal variable region of the heavy or light chain of said immunoglobulin

wherein said expression vector provides for stable expression of said nucleotide sequence in the haemopoietic or lymphoid cell and

wherein said vector contains more than one copy of the nucleotide sequence encoding said epitope.

48. The expression vector of claim 47 wherein said antigen is associated with autoimmune disease or allergic reactions of said animal.

49. The vector of claim 48 wherein said antigen is associated with an allergic reaction and is an antigen of pollen, ragweed, or dust mite.

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50. The expression vector of claim 48 wherein said antigen is an autoantigen and is selected from clotting factor VIII, acetylcholine receptors, collagen, myelin basic protein, thyroglobulin, and histocompatibility antigen.

51. A transformed haemopoietic or lymphoid cell comprising the expression vector of claim 47.--

REMARKS

I. The Amendment

The claims have been amended to more distinctly point out the invention. Support for claim 31 is found in claim 1 as previously pending; the restriction of the antigen to that associated with autoimmune disease or allergic reactions is found on page 8, lines 1-2. Support for the limitations of claims 34-35, 43-44, and 49-50, is found on page 10, lines 24-30. Support for the limitation of claims 36 and 47 (more than one copy of the epitope) is found on page 3, line 23. Support for claims to retroviral vectors is found in original claim 2. No new matter has been added and entry of the amendment is respectfully requested.

II. Formal Matters

The rejection under 35 U.S.C. § 112, second paragraph, is obviated by insertion of the ATCC Deposit Number; a copy of the deposit document is enclosed.

The present application is a divisional filed to prosecute subject matter not elected in the parent.